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Title: Microstructured three-dimensional printed circuit boards: a novel fabrication technology for optical transceiver modules

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Abstract: A novel technology for the fabrication of three-dimensional microstructured circuit boards is presented. The process line includes master fabrication, microstructure electroplating, plastic moulding and selective metal layer deposition. The circuit boards allow the passive alignment of semiconductor dies, optical ray forming elements and optical fibers with high precision. The main application field is the fabrication of optical transceiver modules. (3 Refs)

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Descriptors: electroplating; modules; optical communication equipment; printed circuit manufacture; transceivers

Identifiers: microstructured 3D PCBs; three-dimensional PCBs; printed circuit boards; fabrication technology; optical transceiver modules; process line; master fabrication; microstructure electroplating; plastic moulding; selective metal layer deposition; passive alignment; semiconductor dies; optical ray forming elements; optical fibers

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